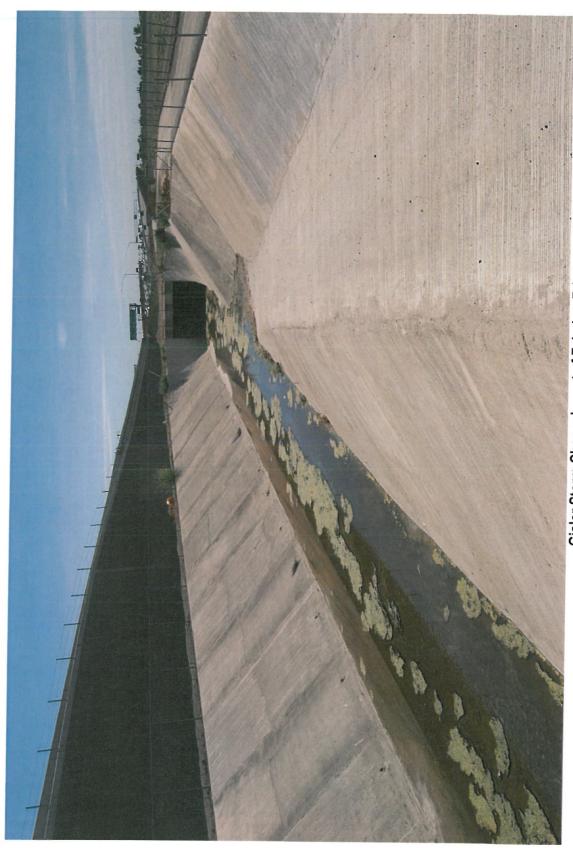


Greenville Banning Channel

Photo Date: April 28, 2010

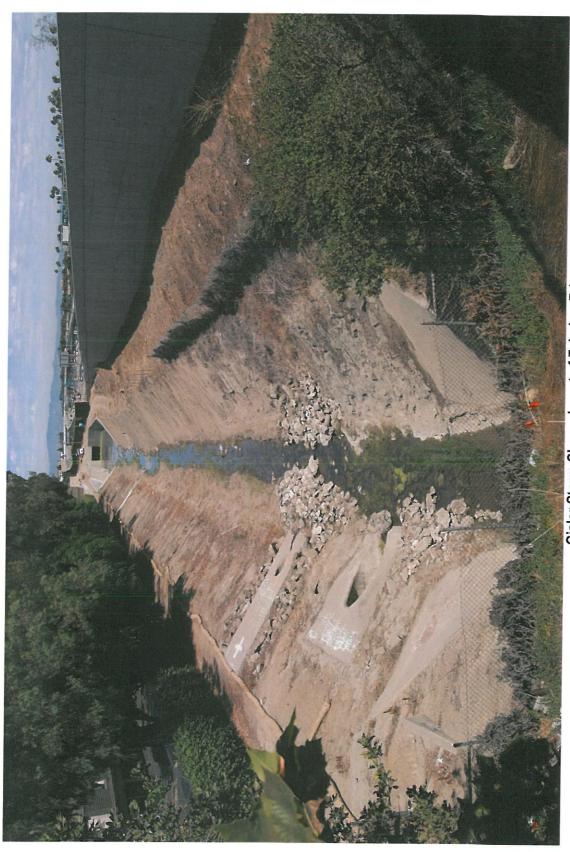
Direction: Picture taken facing southwest, from north of I-405.



Gisler Storm Channel, west of Fairview Rd.

Photo Date: April 4, 2009

Direction: Picture taken facing west, from north of I-405.



Gisler Storm Channel, east of Fairview Rd.

Photo Date: April 4, 2009

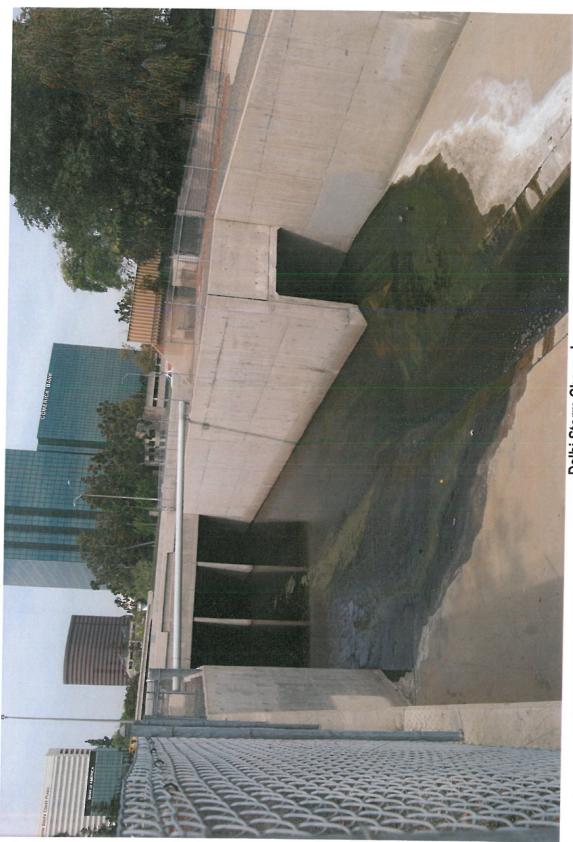
Direction: Picture taken facing east, from north of I-405.



Delhi Storm Channel

Photo Date: April 27, 2010

Direction: Picture taken facing South, from north of I-405.

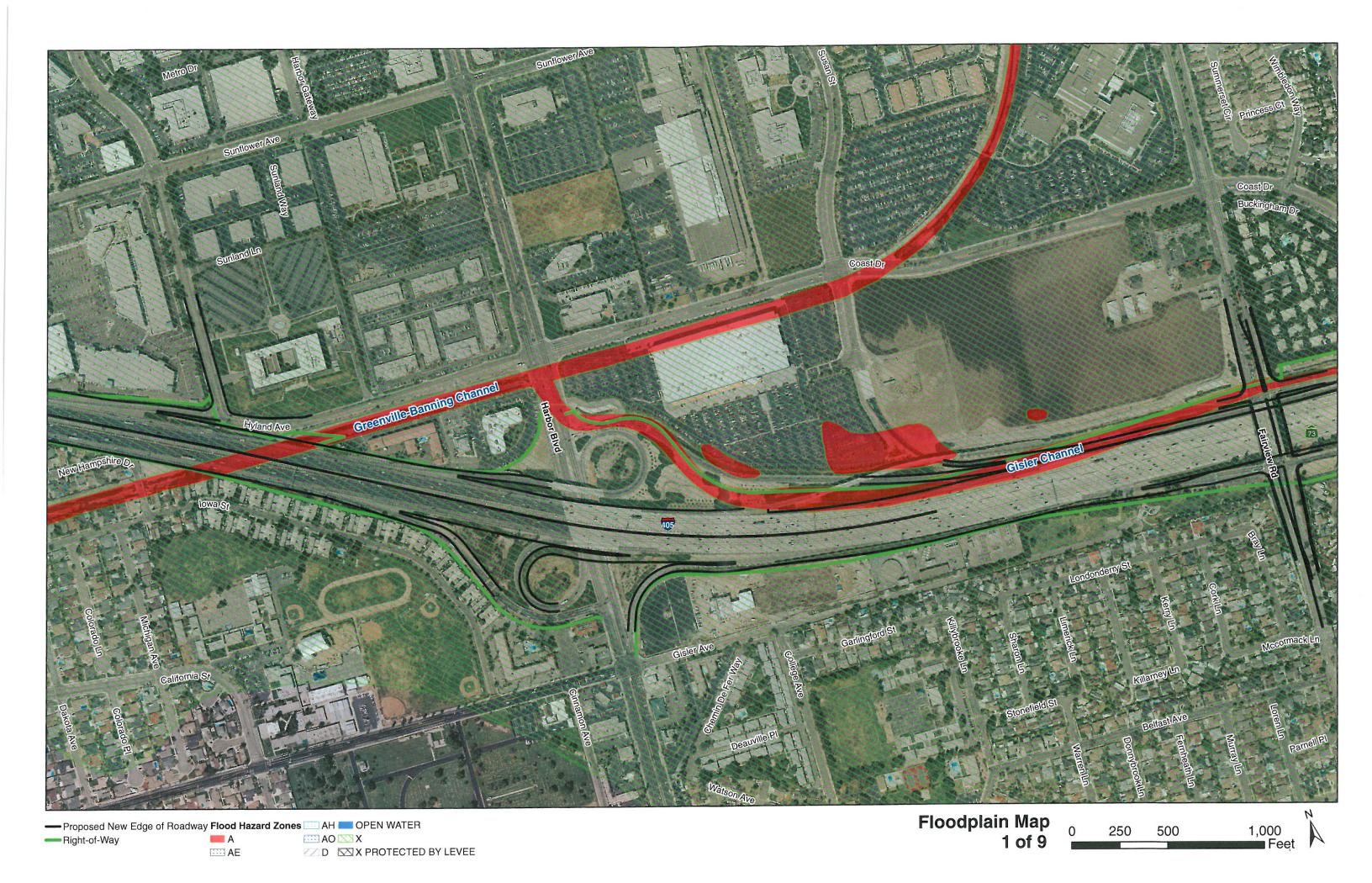


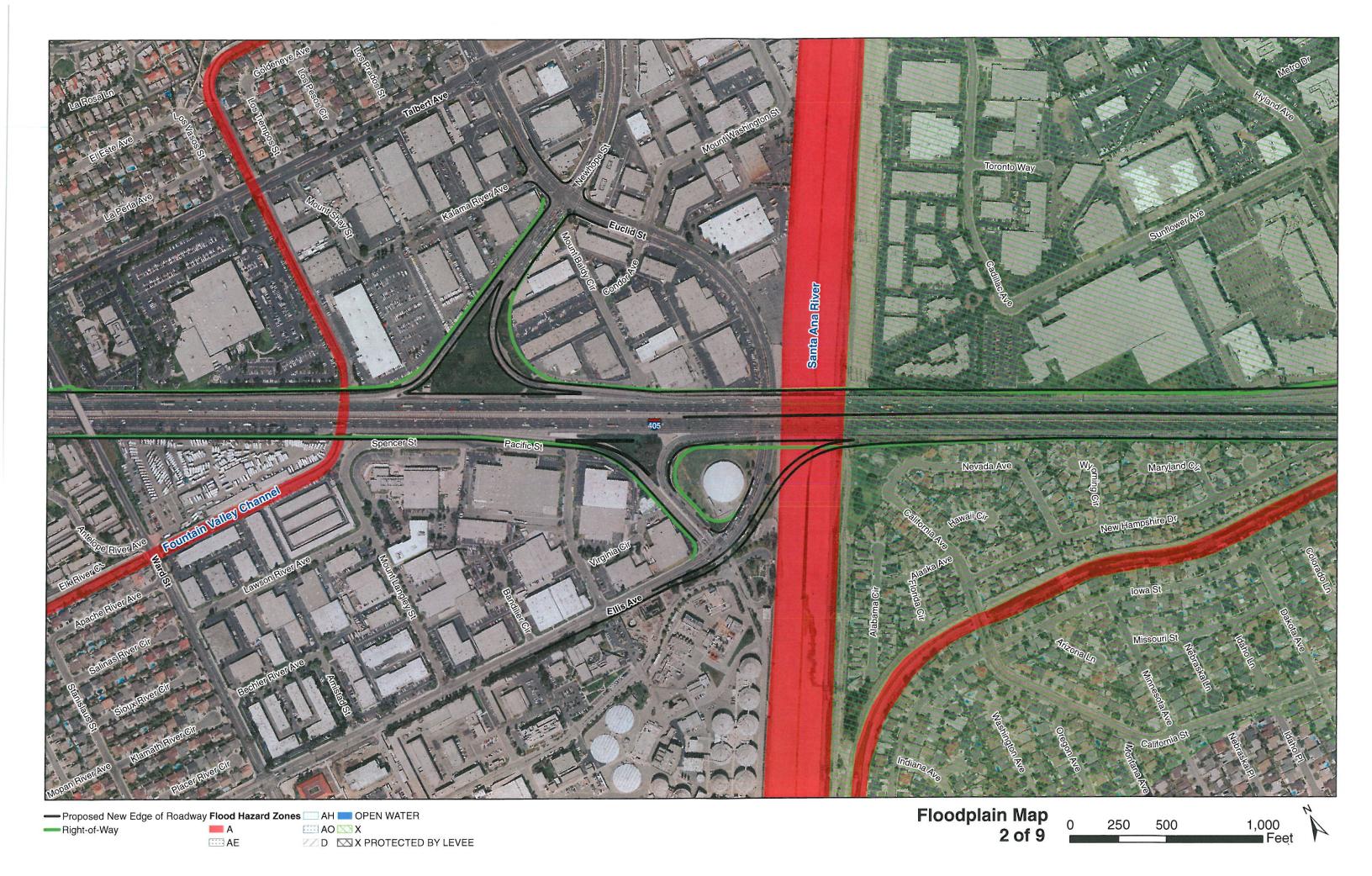
Delhi Storm Channel

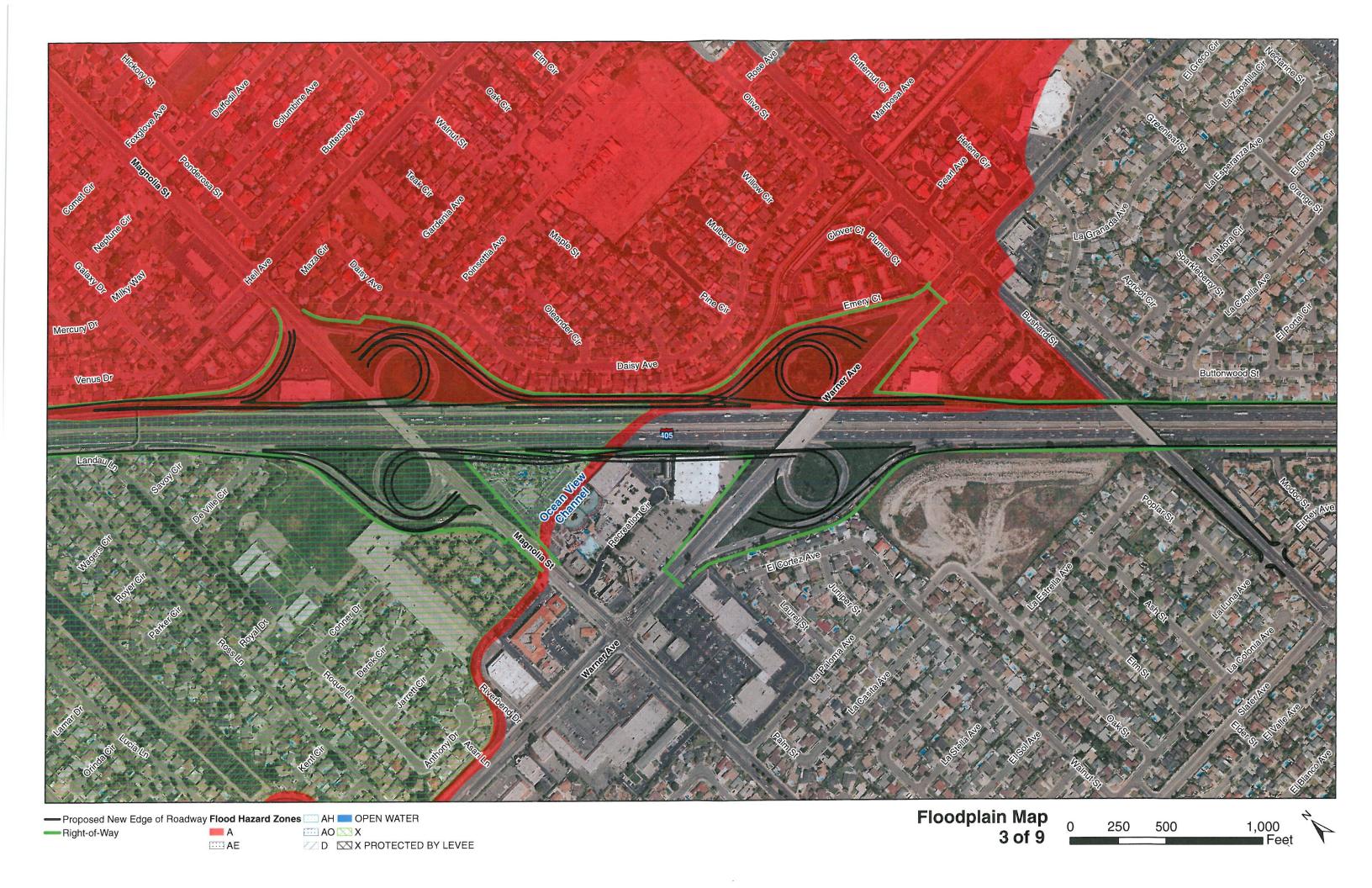
Photo Date: April 27, 2010

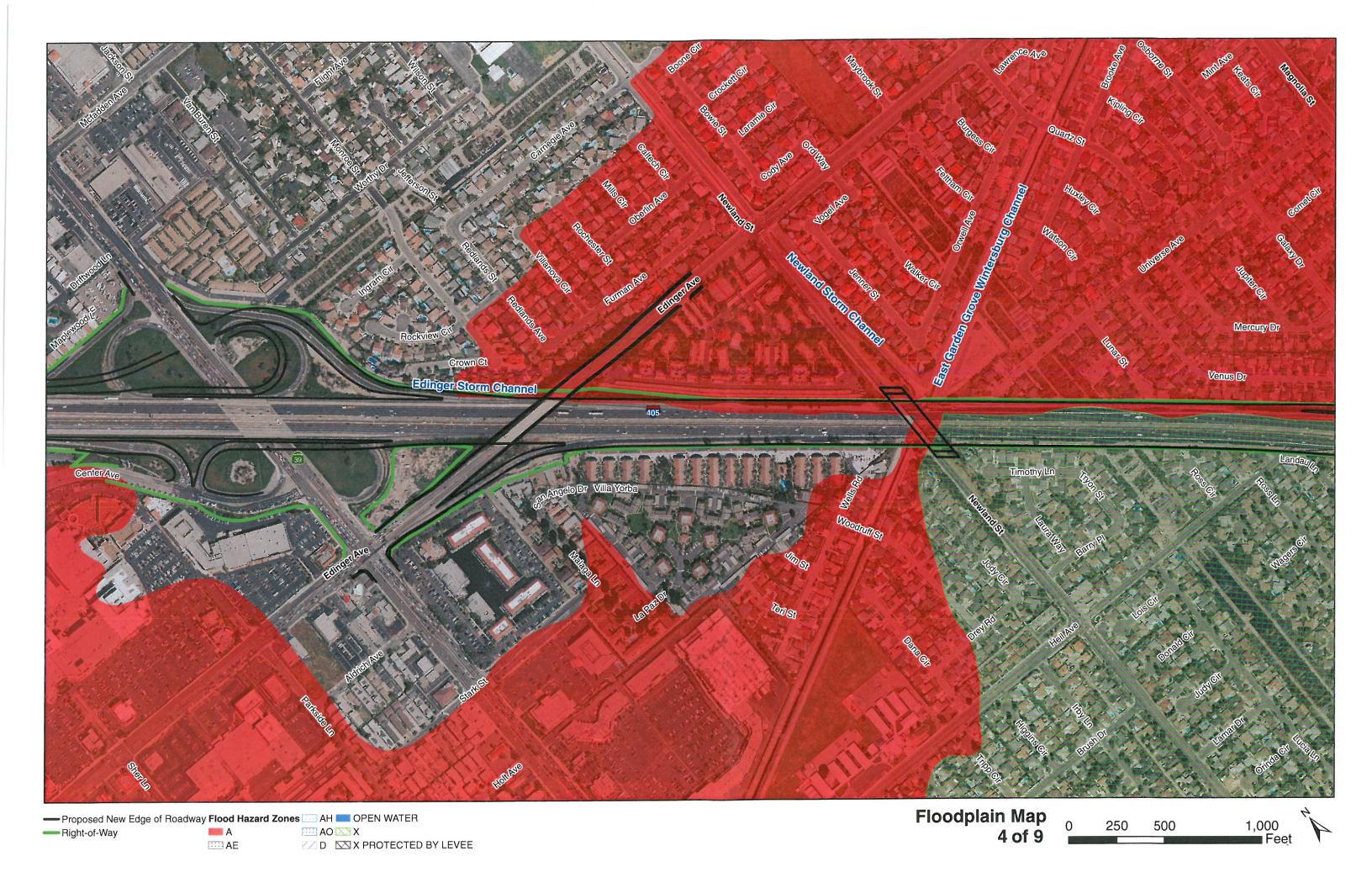
Description: Picture taken facing North, from south of I-405.

APPENDIX C PROPOSED ROADWAY IMPROVEMENTS ADJACENT TO FLOODPLAINS



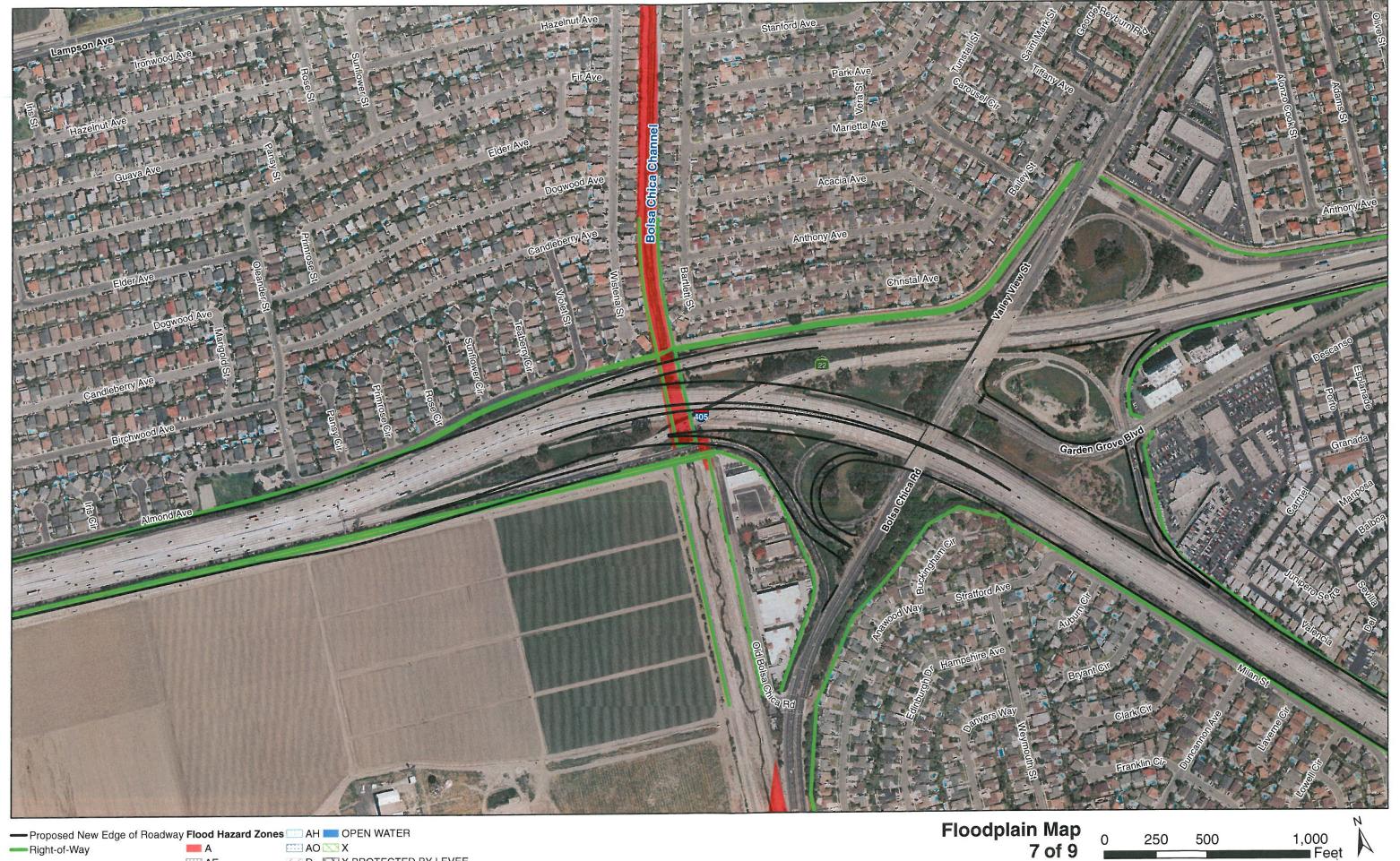












AO X Right-of-Way ✓ D ☒ X PROTECTED BY LEVEE ⊞ AE

7 of 9

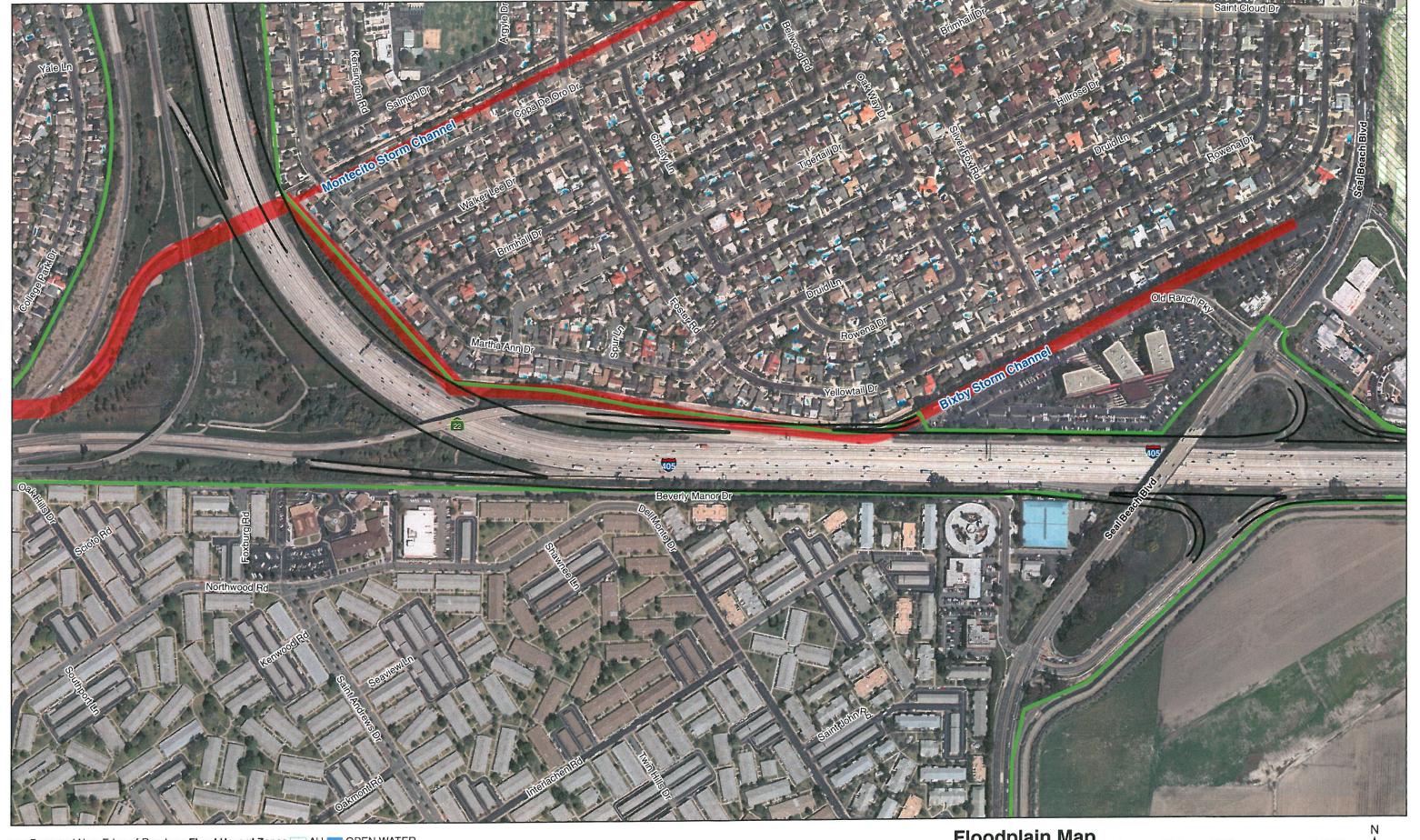


AO X ✓ D ☒X PROTECTED BY LEVEE

Right-of-Way

⊞ AE

Floodplain Map 8 of 9



── Proposed New Edge of Roadway Flood Hazard Zones
 ── Right-of-Way
 ── A
 ── A
 ○─ B
 ○─ B

Floodplain Map 9 of 9

250 500 1,000 Feet

APPENDIX D LOCATION HYDRAULIC STUDY FORMS

	ist.	12	Co.	OC	Rte.	405	P.M.	9.89/11.45	
E		71621					Bridge No.	. N/A	
Fl	oodpl	ain Descri	ption:	Gisler S	Storm Chann	iel	201102-0-10		
1.	Desc	ription of l	Proposal	(include	any physica	al barriers i	i.e. concrete	e barriers, so	undwalls.
etc	and:	design ele	ements to	minimiz	e floodplair	n impacts)		,	,
D.	d				•				
Ori	ginal	state.	g may im	pact 1100	d structures	s during co	nstruction,	but will be re	estored to
	ADT:		Curren	t 3	07,000		Droinatad	125,000	11. 0
			Curren		07,000	_	Projected	435,000 (Alt. 3)
3	Hvdra	aulic Data:		Rase El	ood Q100=	I Teal		c.3 /	
							cnown r than Q100:	π / s	
Q=		Unknow	$n \text{ ft}^3/s$	_ 1110 110	WCE-	Unknown			
							-		
					$\frac{\text{vn}}{\text{e?}}$ m ³ /s YES		WSE=	Unknown	
All	J 141 1	i maps an	u stuutes	avaliable	er res)X	_ NO		
4. I	s the	highway l	ocation a	Iternative	within a re	egulatory fl	oodway 2		
		YE				X			
				_	,,0		-		
5. A	Attacl	n map with	n flood lir	nits outli	ned showin	g all build	ings or othe	r improveme	ente
wit	hin th	e base flo	odplain.				ango or othe	i improveme	iits
Pot	ential	Q100 back	water dar	mages:					
	D	• • • •							
A.		idences?				NO		YES_	
В. С.		er Bldgs?				NO		YES_	2000
	Cro		C . 1	a		NO	X	YES_	
D.	Ivan	ural and be	eneficial i	lloodplan	n values?	NO	X	YES_	
6 T	wne c	of Traffic:							
0. 1	ypec	i manne.							
A. E	Emerg	gency supp	olv or eva	cuation r	oute?	NO		VEC	N/
		gency vehi			oute.	NO		YES_ YES	X X
	100	cable deto				NO	X	YES —	
D. S	choo	l bus or m	ail route?)		NO	X	YES —	
7. E	stima	ted duration	on of traf	fic interr	uption for 1	00-year ev	ent hours:	0	
							-		1
8. E	stima	ted value	of Q100 flo	ood dama	iges (if any) – modera	te risk level	•	

A. B.	Roadway Property Total	\$ \$ \$	0 0 0		
9	Assessment of Le	evel of Risk	Low Moderate High	X	
For High May be r	Risk projects, duraccessary to determ	ring design phase, ac nine design alternati	lditional Design ve.	n Study Risk Analysis	,
	e – Dist. Hydraulic nbers 3,4,5,7,9)	Engineer		Date	
Is there a incompat	ny longitudinal en ible Floodplain de	croachment, significevelopment?		ent, or any support of	
If yes, pro	ovide evaluation a 550.113	nd discussion of pra	NO cticability of alt	X YES ternatives in accordan	ce with
Informati Study sha	on developed to co ll be retained in th	omply with the Fedence project files.	eral requirement	for the Location Hyd	raulic
	– Dist. Project Er nbers 1,2,6,8)	ngineer		Date	

Di	st.	12	_Co.	OC	Rte.	405		P.M.	11.70	
EA	A	071621	_				3	Bridge No	. 55 0476	
Flo	oodpla	in Descrip	otion:	Greenvill	e Banning	Chanr				
1.	Descri	ption of P	roposal	(include ar	ny physica	al barr	iers i	.e. concrete	e barriers, sou	undwalls.
etc	c. and o	design eler	nents to	minimize :	floodplair	n impa	icts)		,	,
D.	1		2 1	12 12 D.C.			-			
Ko	aaway	widening	over 3-	2X12 RCI	3, extend	existii	ng RO	CB on upst	ream side.	
7	ADT:		Current	307	7,000		~	Drainatad	125,000	
2.	101.		Current	307	,000			Projected	435,000 (Alt. 3)
3	Hvdrai	ılic Data:		Rase Flor	od Ouo-		2	150	c ₃ / -	
			own	The floor	da Qivo= Lof recor	d if m	reater	450 r than Q ₁₀₀ :	π / s	
Q=				- 1110 11000						
					12			38		
				Unknown available?				WSE=	Unknown	
All	C INITI	шарѕ апс	i studies	avaliable?	IES	·	<u> </u>	NO		
4. I	s the h	nighway lo	cation al	ternative v	vithin a re	-oulate	orv fl	oodway 2		
		YES						oodway !		
			-	-	,,,			•		
5. A	Attach	map with	flood lin	nits outline	ed showin	ng all l	ouildi	ings or othe	er improveme	ente
wit	hin the	e base floo	dplain.			0			ninpro venic	ATCS
Pot	ential	Q100 backy	water dar	nages:						
		2000								
A.		dences?					NO	X	YES_	
B.		r Bldgs?					NO	X	YES_	
C.	Crop						NO	X	YES_	
D.	Natu	ral and be	neficial f	loodplain	values?		NO	X	YES_	
<i>(</i> T	·	CT CC								
0. 1	ype of	f Traffic:								
ΑF	Emero	ency sunn	ly or eva	cuation ro	uta?		NO		MEG	~.
		ency supple			ute:		NO.		YES_	X
		able detou					NO.		YES_	X
		bus or ma					NO.	$\frac{X}{X}$	YES — YES	
							110		1E3_	-
7. E	stimat	ed duratio	n of traf	fic interrur	otion for 1	100-ye	ar ev	ent hours:	0	
				1					0	
8. E	stimat	ed value o	of Q100 flo	ood damag	ges (if any	y) – mo	odera	te risk leve	l.	

A.	Roadway	\$	0		
B.	Property	\$	0		
	Total	\$	0		
9	Assessment of Le	vel of Risk	Low Moderate High	X	- -
For High May be i	n Risk projects, duri necessary to determ	ing design phase, a ine design alterna	additional Desi tive.	gn Study	Risk Analysis
	e – Dist. Hydraulic mbers 3,4,5,7,9)	Engineer			Date
Is there a	ny longitudinal enc tible Floodplain dev	croachment, signif velopment?	icant encroachi	ment, or a	any support of
If yes, pro	ovide evaluation an 650.113	nd discussion of pr	NO acticability of	X alternativ	YES es in accordance with
Informati Study sha	on developed to co	omply with the Fed e project files.	leral requireme	nt for the	Location Hydraulic
	e – Dist. Project Eng nbers 1,2,6,8)	gineer	· · · · · · · · · · · · · · · · · · ·		Date

Dist. <u>12</u> Co.	OC	_Rte.	405	P.M.	12.41	
EA <u>071621</u>				Bridge No.	. 55 0258	
Floodplain Description:	Santa Ana	River			***	
1. Description of Proposetc. and design elements				e. concrete	e barriers, sou	ındwalls,
Bridge widening, pier wa	all extension, i	new pier v	walls for E	uclid on-ra	imp.	
2. ADT: Curr	rent307,	,000		Projected	435,000 (Alt. 3)
3. Hydraulic Data:				,000		
WSE100= Unknown		of record	l, if greater	than Q100:		
$Q = Unknown ft^3 /$	S	WSE=	Unknown			
Overtopping flood Q=				WSE=	Unknown	
Are NFIP maps and stud	ies available?	YES	X	NO		
4. Is the highway location YES X	<u></u>	NO				
5. Attach map with flood within the base floodplai		d showin	g all buildi	ngs or othe	er improveme	nts
Potential Q100 backwater	damages:					
A. Residences?			NO	X	YES	
B. Other Bldgs?			NO	X	YES	
C. Crops?			NO	X	YES	
D. Natural and benefic	ial floodplain	values?	NO	X	YES_	
6. Type of Traffic:						
A. Emergency supply or	evacuation rou	ıte?	NO		YES	X
B. Emergency vehicle ac			NO		YES	X
C. Practicable detour ava			NO	X	YES	
D. School bus or mail ro	ıte?		NO.	X	YES _	
7. Estimated duration of	traffic interrup	otion for 1	00-year ev	rent hours:	2	
8. Estimated value of Qu	o flood damag	es (if any) – modera	te risk leve	1.	

A. B.	Roadway Property Total		0 0 0			Si .				
9	Assessment of Lev	vel of Risk	Low Moderate High	X						
For High May be n	Risk projects, duri	ng design phase, ad ine design alternativ	ditional Design /e.	Study F	Risk Analy	sis				
	e – Dist. Hydraulic mbers 3,4,5,7,9)	Engineer			Date -					
Is there a	ny longitudinal enc ible Floodplain dev	roachment, signific	ant encroachme	ent, or an	y support	of				
If yes, pro 23 CFR 6	ovide evaluation an 50.113	d discussion of prac	NO cticability of alt	ernatives	ES s in accord	X lance with				
Information developed to comply with the Federal requirement for the Location Hydraulic Study shall be retained in the project files.										
	– Dist. Project Eng abers 1,2,6,8)	gineer		D	ate _					

Di	ist. <u>12</u>	_Co.	OC	Rte.	405	P.M.	12.87	
\mathbf{E}^{A}	A <u>071621</u>					Bridge No	. N/A	
Fl	oodplain Descrij	otion:	Fountai	n Valley Ch				
1.	Description of F	roposal	(include	any physica	al barriers	i.e. concrete	harriers so	ındwalle
etc	and design ele	ments to	minimiz	e floodplair	impacts)		e ourrers, so	mawans,
				-				
Ro	adway widening	g over 2-1	10x7 RC	B, lengthen	culvert, n	nodify inlet	and outlet st	ructures.
_								
2.	ADT:	Current	t3	07,000		Projected	435,000 (Alt. 3)
3.	Hydraulic Data:		Base F	lood Q100=	1	172	ft^3 / s	
	SE100= Unk	nown	The flo	od of record	d, if greate	r than Q100:		
Q=	Unknown	$\frac{1}{2}$ ft ³ / s		WSE=	Unknown			
Ov	ertopping flood	Q=	Unknov	$vn m^3/s$		WSE=	Unknown	
Are	e NFIP maps and	d studies	available	e? YES	X	NO		
4. I	s the highway lo		ternative			loodway?		
	YES	S	-	NO	X	_		
-		100 N 1000						
5. A	Attach map with	flood lin	nits outli	ned showin	g all build	ings or othe	r improveme	nts
wit	hin the base floo	odplain.						
Dot	antial Oua hade							
rot	ential Q100 back	water dar	nages:					
A.	Residences?				NO	37	TIDO	
В.	Other Bldgs?				NO NO		YES_	
C.	Crops?				NO		YES_	
D.	Natural and be	neficial f	loodnlai	n values?			YES_	
D .	rvaturar and be	ileffetat 1	iooupiai	ii values?	NO	X	YES_	
6. T	ype of Traffic:							
	JP							
A. E	Emergency supp	ly or eva	cuation r	oute?	NO		YES	v
	Emergency vehic				NO		YES _	X X
	racticable detou				NO	X	YES —	
D. S	School bus or ma	ail route?			NO	X	YES —	
							110_	
7. E	stimated duration	n of traff	ic interr	uption for 1	00-year ev	ent hours:	2	
						-		
8. E	stimated value of	of Q100 flo	ood dama	ages (if any) – modera	te risk level		

A.	Roadway	\$	0			
B.	Property	\$	0			
	Total	\$	0			
9	Assessment of	Level of Risk	Low	X		
			Moderate	e		
			High			
For H	igh Risk projects.	during design phas	e. additional D	esign Stud	lv Rick Analysis	
		ermine design alter		osign stat	29 103K 7 11ta1 y 313	
a.	D' 11 1	1' 7				
	ture – Dist. Hydrau		· · · · · · · · · · · · · · · · · · ·		Date	
(Hem	numbers 3,4,5,7,9)				
Is ther	e any longitudinal	encroachment, sig	nificant encroa	chment, o	er any support of	
	patible Floodplain				The state of	
			NO	X	YES	
If yes,	provide evaluatio	n and discussion of	practicability	of alternat	tives in accordance	with
23 CF	R 650.113					
Inform	nation dayslaned t	o comply with the	Fadaral magnina		d. r , rr 1	
		n the project files.	rederai require	ment for t	the Location Hydrau	ilic
Study	shan be retained i	if the project mes.				
~.	D					
	ure – Dist. Project numbers 1,2,6,8)	Engineer			Date	

Di	st.	12	_Co.	OC	Rte.	405		P.M.	14.50/16.98	
EA	1	071621	_					Bridge No.	55 0478	
Flo	oodplai	in Descrip	tion:	Ocean Vie	w Channe	el				
etc	. and d	lesign elen	nents to	minimize f	loodplair	impa	cts)		e barriers, sour	ndwalls,
Ro	adway	widening	over 2-1	2x9.5 RCI	B, lengthe	en culv	ert u	ipstream.		
2. /	ADT:		Current	257,	,000	_		Projected	352,000 (Alt. 3)
3. I	Hydrau	ilic Data:		Base Floo	od Q100=		1,9	930	ft^3/s	
								than Q100:		
Q=		Unknown	ft^3/s		WSE=	Unkr	own			
				Unknown					Unknown	
Are	NFIP	maps and	studies	available?	YES	Σ				
5. A	Attach	YES	flood lin	-	NO	X			er improvemer	ıts
Pote	ential (Q100 backv	vater dar	nages:						
A.	Resid	lences?					NO	X	YES	
В.		·Bldgs?					NO	X	YES	
C.	Crops	s?					NO	X	YES _	
D.	Natu	ral and bea	neficial f	loodplain v	values?		NO.	X	YES_	
6. T	ype of	Traffic:								
A. E	Emerge	ency suppl	y or eva	cuation rou	ite?		NO		YES	X
B. E	Emerge	ncy vehic	le access	s?			NO		YES -	X
C. P	ractica	able detou	r availab	ole?			NO	X	YES	
D. S	School	bus or ma	il route?	•			NO	X	YES	
7. E	stimate	ed duratio	n of traf	fic interrup	tion for 1	00-ye	ar ev	ent hours:	2	
8. E	stimate	ed value o	f Q100 fl	ood damag	es (if any) – mo	dera	te risk level	l.	

A. B.	Roadway Property Total	\$	0 0		
9	Assessment of Lev		Low Moderate High	X	
For High May be n	Risk projects, during ecessary to determine	ng design phase, ad ne design alternati	lditional Design ve.	n Study	Risk Analysis
	– Dist. Hydraulic Inbers 3,4,5,7,9)	Engineer			Date
Is there are incompation	ny longitudinal enc Ible Floodplain dev	roachment, signific elopment?	ant encroachm	ent, or a	any support of
If yes, pro 23 CFR 6	vide evaluation and 50.113	d discussion of prac	NO eticability of al	X ternative	YES es in accordance with
Information Study shall	on developed to con	nply with the Fede project files.	ral requiremen	t for the	Location Hydraulic
	– Dist. Project Eng bers 1,2,6,8)	ineer]	Date

Dist		_Co.	OC	Rte.	405	-	14.50/16.98						
EA	071621	_				Bridge No.	55 0480						
Floo	dplain Descrip	otion:	East Garde	Wintersburg	g Channel								
etc. a	 Description of Proposal (include any physical barriers i.e. concrete barriers, soundwalls, etc. and design elements to minimize floodplain impacts) New bridges over channel, new pier wall at center of channel. 												
		,	F		tor or char								
2. A	DT:	Curren	t257,	,000	_	Projected	352,000 (2	Alt. 3)					
													
	ydraulic Data:		Base Floo	od Q100=	5,	910	ft^3/s						
	E100= Unk	nown	The flood	of record	d, if greater	than Q100:							
	Unknown				Unknown								
	topping flood						Unknown						
Are l	VFIP maps and	d studies	available?	YES	XX	NO							
4 T-	41 1	4*	12 23	*.1 *	1								
4. IS	the highway lo		iternative w		5700 N.S.	150							
		,	-	NO	X	-							
	tach map with n the base floo		nits outline	d showin	ig all buildi	ings or othe	er improvemen	its					
Poter	ntial Q100 back	water da	mages:										
A.]	Residences?				NO	X	YES						
В. О	Other Bldgs?				NO		YES _						
C. (Crops?				NO	X	YES						
D. 1	Natural and be	eneficial	floodplain	values?	NO	X	YES						
6. Ty	pe of Traffic:												
A En	nergency supp	olv or eva	cuation rou	ite?	NO		YES	v					
	nergency vehi			ic.	NO		YES —	$\frac{X}{X}$					
	acticable detor				NO	X	YES _						
D. School bus or mail route? NO X YES													
7. Est	7. Estimated duration of traffic interruption for 100-year event hours:8												
8. Est	imated value	of Q100 fl	ood damag	es (if any	') – modera	ite risk leve	1.						

A.	Roadway	\$	0		
В.	Property	\$	0		
	Total	\$	0		
9	Assessment of	Level of Risk	Low Moderate High	X	
	gh Risk projects, e necessary to det			sign Study Risk Analysis	;
	ure – Dist. Hydrau numbers 3,4,5,7,9			Date	
	e any longitudinal patible Floodplain		gnificant encroac	hment, or any support of	S.
	provide evaluation R 650.113	n and discussion o	NO of practicability o	YESf alternatives in accordan	X ace with
	ation developed to shall be retained in			nent for the Location Hyd	lraulic
	ure – Dist. Project numbers 1,2,6,8)	Engineer		Date	

Dist.	12	_ Co.	OC	_Rte.	405	P.M.	20.56/20.91	
EA	071621	_ .				Bridge No	o. <u>N/A</u>	
Flood	olain Descri	ption:	Milan Sto	orm Drain				
1. Des etc. an	cription of F d design ele	Proposal ments to	(include ar minimize	ny physica floodplair	al barriers	s i.e. concre	te barriers, sou	ndwalls,
Roadw	vay widening	g over 4x	4 RCB, lei	ngthen RC	CB.			
2. AD	Γ:	Curren	t 257	7,000		Projected	352,000 (Alt. 3)
•	raulic Data:		Base Flo		-		$_{\rm ft}^3$ / s	
					100 A	ter than Q100):	
6	Unknow	_		22	Unknow	<u>/n</u>		
	pping flood					WSE=	Unknown	
Are NI	FIP maps an	d studies	available?	YES	X	_ NO)	
4. Is th	e highway le YE		Iternative v	within a re		floodway?		
within	ch map with the base floo al Q100 back	odplain.		ed showin	ig all bui	dings or oth	er improveme	nts
A. Re	esidences?				N	о х	YES	
	her Bldgs?				N		- YES	
C. Cr	ops?				N		YES -	
D. Na	atural and be	eneficial	floodplain	values?	N	O X	YES_	
6. Type	of Traffic:							
	ergency supp			ute?	N	0	YES_	X
	rgency vehi				N	0	YES	X
	ticable deto				N		YES_	
D. Scho	ool bus or m	all route	!		N	OX	YES_	
7. Estin	nated durati	on of traf	fic interrup	ption for 1	100-year	event hours:	0	
8. Estin	nated value	of Q100 fl	ood damag	ges (if any) – mode	rate risk lev	el.	

A.	Roadway	\$	0		
B.	Property	\$	0		
	Total	\$	0		
9	Assessment of Le	vel of Risk	Low Moderate High	X	- - -
		ing design phase, a ine design alterna		n Study	Risk Analysis
	e – Dist. Hydraulic mbers 3,4,5,7,9)	Engineer	-		
	ny longitudinal en ible Floodplain de	croachment, signif velopment?		ent, or	any support of
If yes, pro 23 CFR 6		nd discussion of pr	NO racticability of all	X	YES
	on developed to coall be retained in the		deral requiremen	t for the	e Location Hydraulic
_	- Dist. Project Er	ngineer			Date

Dis	st. <u>12</u>	_Co.	OC	Rte.	405		P.M.	23.08	
EA	071621	_]	Bridge No	. N/A	
Flo	odplain Descrip	otion:	Bixby S	torm Chann	el				
etc.	Description of P . and design elemandes . adway widening	ments to	minimiz	e floodplaii	al barr n impa	iers i.	e. concrete	e barriers, sou	ındwalls,
100	adway widening	s, new o	ypass cha	inici.	A.11				
2. <i>A</i>	ADT:	Currer	nt3	70,000	_		Projected	512,000 (Alt. 3)
3. F	Hydraulic Data:		Base F	ood Q100=		2	03	ft^3/s	
WS	SE100= Unkı	nown	The flo	od of recor	d, if gr				
Q=									
5500	ertopping flood						WSE=	Unknown	
Are	NFIP maps and	d studies	available	e? YES	S	ζ	NO		
5. A with	s the highway lo YES Attach map with hin the base floo ential Q100 back	flood li	– mits outli	NC)>	ζ		er improveme	nts
			8						
A.	Residences?					NO	X	YES	
B.	Other Bldgs?					NO	X	YES	
C.	Crops?					NO	X	YES	
D.	Natural and be	neficial	floodplai	n values?		NO.	X	YES_	
6. T	ype of Traffic:								
A. E	Emergency supp	ly or ev	acuation	oute?		NO		YES	X
	Emergency vehi	-				NO		YES	X
	racticable detor					NO.	X	YES	
D. S	School bus or m	ail route	?			NO	X	YES_	
7. E	stimated duration	on of tra	ffic interr	uption for	100-ye	ar ev	ent hours:	8	791
8. E	stimated value	of Q100 f	lood dam	ages (if any	v) – mo	odera	te risk leve	1.	

A.	Roadway	\$	0		
B.	Property	\$	0		
	Total	\$	0		
9	Assessment of Le	vel of Risk	Low Moderate High	X	
	Risk projects, duri necessary to determ			n Study	y Risk Analysis
	e – Dist. Hydraulic mbers 3,4,5,7,9)	Engineer	4100		Date
Is there a incompat	ny longitudinal end ible Floodplain de	croachment, signif	icant encroachm	ent, or	any support of
			NO	X	YES
If yes, pro 23 CFR 6		nd discussion of pr	racticability of al	ternati	ves in accordance with
Informati Study sha	on developed to co all be retained in th	omply with the Federal e project files.	deral requiremen	t for th	e Location Hydraulic
	– Dist. Project Ennbers 1,2,6,8)	gineer			Date

Dist.	12	Co.	OC	Rte.	40:	5	P.M.	23.53	
EA	071621				-	I	Bridge No.	. N/A	
Floodp	lain Descri	ption:	Montecit	o Storm Cl	hanne	el			
			ST						
1. Desc	ription of H	Proposal	(include a	nv physic	al ba	rriers i.	e. concrete	e barriers, sou	indwalls
	l design ele						-	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	ina wans,
	C			1	1	,			
Roadwa	ay widenin	g, sound	walls.						
2. ADT	:	Currer	nt37	0,000	_		Projected	512,0	00
3. Hydr	aulic Data:		Base Flo	od Q100=		4	10	ft^3/s	
WSE100	= Unk						than Q100:		
Q=	Unknow	$\frac{1}{1}$ ft ³ / s		WSE=	Un	known			
Overton	ping flood	Q=	Unknow	$n m^3 / s$			WSE=	Unknown	
	IP maps an					X	NO	-	
4. Is the	highway l	ocation a	alternative	within a r	egula	atory fl	oodway?		
	YE	S		NO)	X			
5. Attac	h map with	n flood li	mits outlir	ned showing	ng al	l buildi	ngs or othe	er improveme	nts
within t	he base flo	odplain.							
Potentia	ıl Q100 back	cwater da	images:						
	. 1 0					210			
	sidences?					NO	X	YES_	
	ner Bldgs?					NO	$\frac{X}{X}$	YES_	
	ops?	٠ . 1	0 11.	1 0		NO		YES_	
D. Na	tural and b	eneficial	Hoodplair	i values?		NO	X	YES_	
6 Tyma	of Troffice								
o. Type	of Traffic:								
Δ Emer	rgency sup	nly or ev	acuation re	oute?		NO		YES	V
	gency sup			Juic:		NO		YES _	$\frac{X}{X}$
	icable deto					NO	X	YES _	
	ol bus or n					NO	X	YES —	
D. Scho	or ous or in	iaii iouk				NO		165_	
7. Estim	ated durati	ion of tra	ıffic intern	intion for	100-	vear ev	ent hours	0	
, . LJGtIII	anda durun	on or do		speion ioi	100-	jour ov	one nours.	U	
8. Estim	ated value	of Q100 f	flood dama	nges (if an	y) – 1	modera	te risk leve	el.	

A.	Roadway	\$	0								
В.	Property	\$	0								
	Total	\$	0								
9	Assessment of Lev	el of Risk	Low Moderate High	X	- - -						
	Risk projects, duri			ign Study	Risk Analysis						
Signature – Dist. Hydraulic Engineer Date											
Is there are incompating	ny longitudinal enc ible Floodplain dev	roachment, signific	cant encroach	ment, or a	any support of						
If yes, pro 23 CFR 6	ovide evaluation and 50.113	d discussion of pra	NO ecticability of	X alternativ	YES res in accordance with						
Information Study sha	on developed to con ll be retained in the	mply with the Feder project files.	eral requireme	ent for the	Location Hydraulic						
7	– Dist. Project Engabers 1,2,6,8)	gineer			Date						

APPENDIX E SUMMARY FLOODPLAIN ENCROACHMENT REPORT

Dist.	12	Co.	OC	Rte.	405	P.M.	9.89/11.45			
Proje	ect No.:					— Bridge	No.:	N/A		
Limi	ts:	Bristol	St. in Co	osta Mes	a to Interst		Long Beach			
Floo	dplain Des	cription:	Gisler	Storm C	hannel					
									Water and the same	
1.	Is the pro	posed ac	tion a lo	ngitudina	al encroach	ment of the	ne base flood	lplain?	No	Yes
2.	Are the ri		iated wi	th the in	nplementat	ion of the	proposed ac	tion		X
3. Will the proposed action support probable incompatible floodplain development?										-
4. Are there any significant impacts on natural and beneficial floodplain values?									X	
5.	floodplain	. Are the	ere any s	pecial m	itigation m	easures no	ze impacts o ecessary to n oodplain val	ninimize	X	
6.7.	defined in	23 CFR	, Section	650.105	5(q).		lain encroac		X X	
	explain.									<u>X</u>
PREI	PARED BY	7:								
 Signat	ture - Dist.	Hydraul	ic Engin	eer	 		Date			
Signat	cure - Dist.	Environi	mental E	Branch C	hief		Date	_		
Signature - Dist. Project Engineer							Date	-		

Dist.	. 12	_Co.	OC	Rte.	405	P.M.	11.70			
Proje	ect No.:	071621			A	Bridg	ge No.:	55 04 76		
Limi	its:	Bristol	St. in Cc	sta Mes	a to Inters	tate 605 in	n Long Bea			
Floo	odplain Des	cription:	Greenv	ille Ban	ning Chan	nel				
1.	Is the proj	posed act	ion a lor	ngitudin	al encroacl	hment of	the base flo	odplain?	No	Yes
2.			iated wi	th the in	nplementat	tion of the	proposed a	action	X	
3.	significan Will the p		action su	ipport pi	robable inc	compatibl	e floodplair	n development	:? <u>X</u>	
4.	Are there	any signi	ficant in	npacts o	n natural a	and benefi	cial floodpl	ain values?	X	
5.	floodplain	. Are the	re any sp	pecial m	itigation n	neasures n	ize impacts ecessary to loodplain v		X	
6.	Does the p	23 CFR,	Section	650.105	$\overline{\mathfrak{s}}(\mathfrak{q}).$			ach-ment as	X X	
7.	Are Locati explain.	ion Hydr	aulic Stu	dies tha	t documen	it the abov	e answers	on file? If not		X
PREI	PARED BY	7:								
 Signa	ture - Dist.	Hydrauli	c Engine	er			Date	_		
							0			
Signat	ture - Dist.	Environn	nental B	ranch C	hief		Date			
 Signat	ure - Dist.	Project E	ngineer				Date			

Dist.	12	_Co.	OC	Rte.	405	P.M.		12.4	1			
Proje	ect No.:	071621				Brid	ge No.:		55 02	58		
Limi	ts:	Bristol	St. in C	osta Mesa	to Inters	tate 605	n Long	Beach	1			
Floo	dplain Des	cription:	Santa	Ana River								
1.	Is the pro	posed ac	tion a lo	ongitudina	encroac	hment of	the bas	se flood	lplain?		No	Yes
2. Are the risks associated with the implementation of the proposed action											X	
significant?									X			
3.	Will the p	roposed	action s	support pro	bable in	compatib	le flood	lplain c	levelopi	nent?		
											X	
4.	Are there	any sign	ificant i	mpacts on	natural a	and benef	icial flo	oodplai	n values	s?		
											X	
5. Routine construction procedures are required to minimize impacts on the floodplain. Are there any special mitigation measures necessary to minimize impacts or restore and preserve natural and beneficial floodplain values? If yes,												
	explain.										X	
6.	Does the place defined in					cant flood	plain e	ncroac	h-ment a	ıs	X	
7.	Are Locat explain.	ion Hydi	aulic St	tudies that	docume	nt the abo	ve ansv	wers on	file? If	not		X
PREI	PARED BY	Y:										
Signa	ture - Dist.	Hydraul	ic Engi	neer			Date	;	-			
							-		_			
Signat	ture - Dist.	Environ	mental l	Branch Ch	ief		Date	;				
Signature - Dist. Project Engineer							Date	 ;				

Dist. 12 Co.	OC Rte.	405	P.M. 12.8	7		
Project No.: 071	621		Bridge No.:	N/A		
Limits: Bris	stol St. in Costa Mesa	a to Interstate	e 605 in Long	Beach		
Floodplain Descripti	on: Fountain Valley	Channel				
1. Is the proposed	action a longitudina	l encroachm	ent of the bas	e floodplain?	No	Yes
2. Are the risks as	ssociated with the im	plementation	n of the propo	sed action	X	-
significant?	X					
3. Will the propos	sed action support pr	obable incor	npatible flood	plain developm	nent?	
4. Are there any s	ignificant impacts or	natural and	beneficial flo	odplain values		
 Routine constru 	action procedures are	e required to	minimize imr	acts on the	X	
floodplain. Are	there any special mi	tigation mea	sures necessa	ry to minimize	es,	
3. 7.	sed action constitute	a significan	t floodplain er	icroach-ment as	<u>X</u>	
defined in 23 C	FR, Section 650.105 ydraulic Studies that	(q).			X	-
explain.	yaraane otaales ma	document	ne above ansv	vers on the? If I	10t 	X
PREPARED BY:						
Signature - Dist. Hydr	aulic Engineer		Date			
Signature - Dist. Envir						
Signature - Dist. Proje	ct Engineer		Date			

Dist.	. 12	Co.	OC	Rte.	405	P.M.	14.50/16.98			
Proje	ect No.:	071621			F-9/2-010 75-010 00-00-0	— Bridge	No.:	55 0478		
Limi	its:	Bristol	St. in Co	osta Mesa	to Intersta	te 605 in	Long Beach			
Floo	odplain Des	scription:	Ocean	View Cha	nnel					
1.	Is the pro	posed ac	tion a lo	ngitudina	l encroachi	nent of th	ne base floodp	lain?	No	Yes
									X	
2.	Are the ri	sks assoc	ciated w	ith the imp	plementation	on of the	proposed action	on significant?	W	
									X	
3.	Will the p	proposed	action s	upport pro	obable inco	mpatible	floodplain de	velopment?		
2	A 19		· · · ·	20					X	
4.	Are there	any sign	ificant ii	mpacts on	natural an	d benefic	ial floodplain	values?		
_	Danting								X	
5.								the floodplain acts or restore	μ	
							f yes, explain.	icis or restore		
	and prese	i i o matan	ar and o	chemetal i	Toodpium	varues.	yes, explain.			
6	Door tho		action o	. a matituta	::c		1.5		X	
6.	defined in					н нооар	lain encroach-	ment as	37	
7.					1 2	the abov	e answers on f	ila? If not	X	
	explain.	ion riyur	dane st	adios tilat	document	the above	c answers on i	ine: It not		v
	r									X
PRE	PARED BY	Y:					*			
		2010 20 22 C								
Signa	ture - Dist.	Hydraul	ic Engin	ieer			Date			
Signa	ture - Dist.	Environ	mental I	Branch Ch	ief		Date			
Signa	ture - Dist.	Project I	Engineer		700 (1 - 2004 o)		Date			
-0		J	0							

Dist.	12	_Co.	OC	Rte.	405	P.M.	14.50/16.98	<u>L</u>		
Proje	ect No.:	071621				Bridge	e No.:	55 0480		
Limi	ts:	Bristol	St. in C	osta Mes	a to Inters	tate 605 in	Long Beach			
Floo	dplain Des	scription:	East G	arden Gr	ove Winte	rsburg Ch	annel			
									No	Yes
1.	Is the pro	posed act	tion a lo	ngitudina	il encroaci	hment of the	he base flood	plain?	-	
2	A	:	المال المالية	:41- 41 :		.: C41		·	<u> </u>	
2.	Are the r	isks assoc	lated w	ith the im	ipiementai	tion of the	proposed acti	ion significant?		
3.	Will the	nranacad	action o	unnort ni	obabla in	aomnatible	floodplain d	ovolonm ont?	X	-
٥.	will the p	proposed	action 5	upport pr	obable iii	compandic	nooupiam u	evelopment?	v	
4.	Are there	any sion	ificant i	mnacts o	n natural a	and benefic	cial floodplair	n values?	<u>X</u>	
ч.	The there	dily sign	illouit i	inpucts o	ii iiatarar t	ina belietik	olai 1100apian	i values:	X	
5.	Routine o	constructi	on proc	edures ar	e reauired	to minimi	ze impacts or	the floodplain		
٥,					1000			pacts or restore		
			3				f yes, explain			
	3,								X	
6.	Does the	proposed	action	constitute	a signific	ant floodr	olain encroach	n-ment as		-
٠.	defined in				-				X	
7.					2 -	nt the abov	e answers on	file? If not		
	explain.									X

PRE	PARED B	Y:								
								_		
Signa	ture - Dist	. Hydraul	ic Engi	neer			Date			
<u> </u>	D' /	Davis		Duon - l- C	Thiof		Data			
Signa	ture - Dist	. Environ	mentai	Branch C	mei		Date			
Signa	ture - Dist	. Proiect	Enginee	r			Date	_		
5		J	0							

Dist	. 12	_ Co.	OC	Rte.	405	P.M.	20.56/20.9	91			
Project No.:		071621 Bridge No.: N/A									
Limits:		Bristol	St. in C	osta Mesa	to Interst	ate 605 i	n Long Beach	h			
				-							
Floo	odplain De	scription:	Milan	Storm Dra	ain						
1.	Is the pro	oposed ac	tion a lo	ngitudina	l encroach	nment of	the base floo	dplain?	No	Yes	
		X									
2.	Are the r	nt?									
2	******	X									
3.	Will the	proposed	action s	upport pro	obable inc	compatible	e floodplain	development	? X		
	A 41	Are there any significant impacts on natural and beneficial floodplain values?									
4.	Are there	any sign	ificant ii	mpacts on	natural a	nd benef	icial floodpla	in values?			
_	D 4.*	X									
5.	Routine of										
							If yes, explai	pacts or resto	ore		
	and prese	A VC Hatur	ar and o	Cheffelai	пооцыан	valuesi	ii yes, expiai				
_			X								
6.		(278) (278)				ant flood	plain encroac	ch-ment as			
defined in 23 CFR, Section 650.105(q).7. Are Location Hydraulic Studies that document the above answers on file? If not							X				
7.		tion Hydi	aulic St	udies that	documen	it the abo	ve answers o	n file? If not			
	explain.									X	
DDE	DADED D	V.									
PKE	PARED B	Υ:									
Signature - Dist. Hydraulic Engineer				Date							
Signature - Dist. Hydraulic Eligilicei							Date				
						20					
Signature - Dist. Environmental Branch Chief				nief		Date					
Zignatur Zignatur Zignatur Ciliti					3650 1000 1000 1000 1000 1000 1000 1000 1		~ ~~~				
Signa	ture - Dist	Project I	Enginee	r	29515		Date				

Dist	. 12	_Co.	OC	Rte.	405	P.M	23.08			
Proj	ect No.:	071621				Brid	ge No.:	N/A		
Limi	its:	Bristol	St. in C	osta Mes	a to Inters	tate 605	n Long Bea	ach		
Floo	odplain Des	cription:	Bixby	Storm Ch	annel					
1.	Is the pro	posed act	ion a lo	ngitudina	l encroac	hment of	the base flo	oodplain?	No	Yes
2.			iated w	ith the im	plementa	tion of th	e proposed	action		X
2	significan	X								
3.	will the p	roposed	action s	upport pr	obable in	compatib	ie floodplai	in developmen		
4.	Are there	any sioni	ficant i	mnacts or	natural c	and banat	icial floods	olain values?	X	-
т.	Are there	any signi	ilicant i	inpacts of	i natutat a	ilia dellel	iciai 1100uț	nam values?	X	
5.	Routine co	tine construction procedures are required to minimize impacts on the								
	floodplain	. Are the	re any s	special mi	itigation n	neasures	necessary to	o minimize values? If yes	, X	
6.	Does the p					ant flood	plain encro	each-ment as	X	
7.	Are Location Hydraulic Studies that document the above answers on file? If not explain.									X
PRE	PARED BY	<i>(</i> :								
Signature - Dist. Hydraulic Engineer Date										
Signature - Dist. Environmental Branch Chief Date										
Signature - Dist. Project Engineer Date										

Dist	. 12	Co.	OC	Rte.	405	P.M.	23.53			
Proj	ect No.:	07162	1			Bridge	e No.:	N/A		
Lim	its:									
					a de la companya del companya de la companya del companya de la co					
Flo	odplain De	scription	: Monte	cito Storn	Channel					

		2							No	Yes
1.	Is the pro	posed ac	ction a lo	ngitudina	l encroacl	nment of th	ne base flo	odplain?		
•	(4 000000 1 0000 00	• • • • • • • • • • • • • • • • • • • •							X	
2.			ciated w	ith the im	plementat	ion of the	proposed a	action		
2	significa			8		X	-			
3.	will the	proposed	action s	upport pro	obable inc	compatible	tloodplai	n developmer		
1	A no thone	onri dian	ifiaanti		1	11 ~	. 1 0 . 1		X	-
4.	Are mere	ally sign	micant i	mpacts on	naturai a	na benefic	tial floodp	lain values?		
5.	Routine	onetruct	ion proce	edures are	required	to minimiz		41	<u>X</u>	
٥.								on the minimize		
								alues? If yes,		
	explain.		P		and or	morrorar m	ooupiani v	ancs: If yes,		
6.			l aatiam .						X	
0.	defined in	proposec	Section	1 650.105	a signific	ant Hoodp	lain encroa	ach-ment as		
7.						t the char		CL O IC	<u>X</u>	
7.	explain.	non rryu	iaulic Si	udies iliai	documen	it the above	e answers	on file? If no	t	
	скрит.									X
PRE	PARED B	γ.								
TICL	IAICDD	1.								
Signa	ture - Dist.	Hydrau	lic Engin	eer			Date	 ,		
			21.811			•	Dute			
		•								
Signa	Signature - Dist. Environmental Branch Chief Date									
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		****					and the second second			
Signa	ture - Dist.	Project 1	Engineer	•			Date			